# **RELinforce**<sup>®</sup>

# Reliance

## **Technical Data Sheet**

Date of Issue: 1<sup>st</sup> May 2020

Page **1** of **2** 

#### Product Name: RELinforce Surface Shield II

Heat cure protective coating for metal.

#### Description

One component protective coating for extremely adverse acidic climate especially sulfuric and phosphoric acid. To be applied either with filler or with glass reinforcement.

#### **Application Areas**

- Protective reinforced coating in corrosive environments
- Suitable for metal (CS/ MS/ SS) pipes and structures
- Suitable for offshore and onshore installations
- Suitable for buried tanks & pipes

#### Features & Benefits

- Superior chemical and thermal resistance
- Unique chemistry that offers unprecedented acid resistance.
- Stable pre-pegs with glass fiber CSM offer ease of application.
- Curing at 80-90°C possible with halogen lamps, resistance heating.
- Minimal weight loss when immersed in 40 wt% sulphuric acid and 88 wt% phosphoric acid at 80°C for two months.
- Excellent mechanical properties

#### **Component Details & Physical Property**

	Mixed
Feel	Liquid
Color	Dark Maroon
Solid Content @ 150ºC - 1 Hr	72% ± 2%
Carrier	Solvent
Viscosity @ 30 <sup>o</sup> C	900 cps ± 100 cps.
Curing Time @ 90 <sup>°</sup> C	~6 hrs
Curing Time @ 120 <sup>0</sup> C	~3 hrs
Specific Gravity@ 25°C	$1.21 \pm 0.04$
рН	8 ± 0.5

#### **Suitable Applications**

- Hand layup
- Prepreg

Vadodara Composites Division, Village: Asoj, Vadodara-Halol Expressway, Taluka: Waghodia, Vadodara, Gujarat 391510

## **RELinforce**<sup>®</sup>



## **Technical Data Sheet**

Date of Issue: 1<sup>st</sup> May 2020

Page **2** of **2** 

#### **Application Procedure**

- Surface to be clean of Oil, Grease, dust & any other material which will affect the adhesion.
- Appropriate Methodology to be adopted to achieve sound substrate for application of product.
- Substrate Residual Moisture to be less than 4%. Not to be applied on substrate with rising dampness.
- Hand lay-up mix material over the substrate to achieve required thickness.
- Application to ensure all pinholes & surface undulation is covered.

#### **Mechanical Properties**

Tensile strength	Tensile modulus	Flexural strength	Flexural modulus	Impact strength
ASTM D638	ASTM D638	ASTM D790	ASTM D790	ASTM D256
> 100 MPa	> 8 GPa	> 170 MPa	> 4 GPa	> 75 kJ/m <sup>2</sup>

\*\* Above are 3 mm thick laminate with glass fabric 450 GSM chop strand glass mat

Chemical Resistance (60 da	ays at 80 ºC)	
• Sulphuric Acid (40%)	: Pass	
Phosphoric Acid (88%)	: Pass	

#### **Packaging Size**

5 kgs, 20 kgs and 200 kgs

#### Shelf Life & Storage Condition

- Shelf life is 30 days from date of manufacturing.
- Store in factory sealed container at 15 °C

#### Health & Safety Hazard Condition

Please refer to MSDS for detailed information on the health & safety hazard while using the product.

\*\*\*\*

Notice: No freedom from any patent owned by RIL or others is to be inferred. RIL assumes no obligation or liability for the information in this document. The information provided herein is presented in good faith and is based on the best of RIL's knowledge, information, and belief. Since use conditions at non-RIL facilities are beyond RIL's control and government requirements may differ from one location to another and may change with time, it is solely the Buyer's responsibility to determine whether RIL's products are appropriate for the Buyer's use, and to assure the Buyer's workplace, use, and disposal practices are in compliance with applicable government requirements. Consequently, RIL assumes no obligation or liability for use of these materials and makes no warranty, express or implied. The user of the information provided is solely responsible for compliance with any applicable government requirements. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

Vadodara Composites Division, Village: Asoj, Vadodara-Halol Expressway, Taluka: Waghodia, Vadodara, Gujarat 391510